thelium of the straight tubes appeared dull. Here and there at the junction of the straight and convoluted tubes, broad cylindrical bodies were found which correspond exactly with those in the urine. All this agrees accurately with the *post-mortem* appearances described by Ponfick and Landois as occurring in cases that proved fatal after the transfusion of animal blood. I have not quite made up my mind as to what were the conditions in this case that led to the fatal termination. It seems, indeed, probable that there was, if I may be allowed to use the expression, a sort of morbid predisposition of the whole circulating system and its contents. From the state of fatty degeneration in which the heart was found, it is plain that there must have been some interference with the nutrition of the vessels, and a considerable change in the constitution of the blood. Now, why should not blood whose chemical and morphological elements have undergone such a change bear the same contrast with healthy blood, as it has been found by experiment that lamb's blood does with dog's blood? It will be very hard to determine in successful cases what influence the transfusion has had, or if indeed it has had any. But the operation itself is so simple, and its good effect so notorious, that it certainly deserves to be performed oftener than it is. In the case of leukæmia that I transfused successfully, the operation had a marked influence on the constitution of the blood. For a drop of blood obtained before the operation by pricking the finger, appeared of light blood-red colour and watery; while a drop obtained in a similar manner after the operation had a florid red colour, and seemed thicker. Both before and after the operation the red blood corpuscles presented a peculiar pale and glistening appearance, and their number was not perceptibly increased by the operation. I may further remark that eight cases in the Augusta Hospital, in which Dr. Kuster lately performed transfusion with lamb's blood, all turned out unsuccessful. These eight cases all died, and in none of them was the good effect of the operation perceptible for more than from ten to fourteen days. In one case the operation was probably the immediate cause of an attack of hæmoptysis, and in another it was followed by protracted fever. All the patients complained during the operation of violent pain in the back and great difficulty in breathing. From half an hour to an hour after the operation they were seized with a rigor, followed by a rise in temperature, which was again dissipated in from five to six hours. It is only fair to mention that all these patients were suffering at the time of the operation from some severe surgical injury."

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28. *Nervous Headache and its Treatment.*—M. HERVEZ DE CHÉGOIN, in the *Union Médicale* for October, 1874, after having verified the dilatation of the arterial vessels of the encephalon and the face during attacks of nervous headache, considers it as an arterial neurosis. Its starting-point is in the great sympathetic, its precise seat in the nervous filaments which accompany the arteries. Its material phenomena are seen in the dilatation of these vessels, and in the compression it produces on the brain and the other organs; for, in a true fit of intense nervous headache, patients suffer universally, the hands are swollen, the muscles painful, and movements of the joints distressing.

M. Hervez de Chégoin concludes from these facts that the treatment should be directed against the distress of the nervous system of the great sympathetic, and against the resulting arterial dilatation which in his view constitutes the essential characteristic of the disorder, in which it is necessary to distinguish three things, the intermittent character, the pain, and the arterial dilatation. A special therapeutic treatment, founded on the rigorous appreciation of and reasoned out from these elements of the disease, leads to the good results which have been obtained by the administration of pills composed as follows:—

Sulphate of quinia, tannin, each 5 centigrammes (0.75 grain), aconitia 1 milligramme (0.015 grain) for one pill. One of these pills is given during the day; but some patients, having of their own accord exceeded this dose, take as many as three or four of them daily, with marked benefit. Tannin, in particular, seems to have a special action, which explains the relief obtained by the use of certain substances, which, like Paullinia, contain it. This treatment, however, is incomplete, since it does not touch the intermittence nor the pain;

these are met by substances contained in the pills for which the formula is given above.—*Lond. Med. Record*, March 31, 1875.

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29. *Alcohol and Digitalis in Typhus Fever.*—Dr. H. M. JONES, in an account (*Dublin Journ. Med. Sci.*, April, 1874) of the typhus fever treated in 1873-74 at the Cork Fever Hospital, makes some interesting remarks on the administration of alcohol and digitalis in that disease.

He stated that he has been gradually relinquishing the use of alcohol in fever. "In June, 1873, I treated," he says, "the first case of severe maculated typhus (which I then thought I had the temerity to treat) without stimulants, and by means of digitalis. Since then I have gradually been diminishing the use of stimulants, until of late I administer them as the rare exception in typhoid, and in a limited class of patients in typhus." It appears from his statistics that the mortality was reduced to 8 per cent.

Dr. J. records the opinion he has formed of the use of digitalis in fever from its administration in a large number of cases. "That digitalis has the power of steadying the pulse, rendering it firmer and less compressible, has been for some time known, its dangerous effects only becoming manifest when it is pushed too far, or toxic doses administered. Then the arterial pressure falls, and the pulse passes from the slow and steady to the rapid and weak. It is clear that in typhus the inhibitory action of the vagus must be lessened; so also the rhythmical power of the cardiac ganglia is interfered with. This is shown by the rapid and weak action, by the character of the pulse; there is a diminished arterial pressure and tension. Dr. Grimshaw, of Dublin, drew attention to this fact, in connection with the action of digitalis, so far back as the year 1867. As it is universally agreed that digitalis possesses, in therapeutic doses, the property of exciting the inhibitory action of the vagus, and of increasing the arterial pressure, we might naturally assume that, in such a disease as typhus, with its quick compressible pulse, it would be indicated; but, again, it appears to me that the result to be desired from the administration of a drug in typhus would be the consequent diminution of the internal work done; a conservatism of force and prevention of waste. I cannot reconcile increased action of the circulatory and respiratory organs in consequence of an abnormal stimulation without a correlative manifestation in an evolution of heat, and I take it that, in many cases of fever, in which the temperature, towards its termination, is gradually lowered to a dangerous degree, or suddenly falls, it is because not only has the natural body-heat been expended, but its latent reserve fund has been encroached on, its force, represented as heat, is exhausted, and there is no power in the system to elicit it. To enable the body, with the least expenditure of force, to tide over its period of extra work, to modify and restrain the general process of combustion, which is taking place in excess, must be our object. In fever the question is—does digitalis assist us to do this? I believe it does. . . I have given digitalis, *watching carefully its effects on the temperature*, in over two hundred cases of acute disease—simple fever, typhus, typhoid, pneumonia, pleuro-pneumonia, delirium tremens, remittent fever, etc., by itself or combined, and I have no doubt of its antipyretic properties. That these will be manifested suddenly, or follow immediately on its use, or that they will be apparent in every instance of the administration of the drug (no more than the effects of any other medicine, when given in moderate doses, invariably follow) is not to be expected. On the contrary, its mode of action is subject to great variations in this respect, in different patients, and often in the same patient. A glance at the daily range of the temperature in the annexed cases, in which digitalis was administered in typhus, will show this. I would say that its antipyretic action, as shown by a characteristic fall, in many cases, is uncertain, or there may be an unaccountable rise during its administration, and a corresponding fall subsequently. Yet that it influences the temperature, in some cases rapidly, in others slowly, is, to my mind, beyond a doubt. I would not expect, from what we know of the physiological action of digitalis, a very marked and decided fall in temperature, though I have frequently seen this, and at periods not connected with defervescence; what I would rather hope would be a restraining power, a limiting of the range, a gradual, but marked